

# Unit Planning Guide: Grade 2 Unit 7 of 8

<b>Unit Title:</b> Prelude to multiplication	<b>Pacing (Duration of Unit):</b> 4 weeks
<b>Grade:</b> 2	<b>Buffer Day(s):</b>

## Desired Results

### Transfer Goals (Priority practice standards in **bold**)

*Students will be able to independently use their learning to:*

- MP.1. **Make sense of problems and persevere in solving them.**
- MP.2. **Reason abstractly and quantitatively.**
- MP.3. Construct viable arguments and critique the reasoning of others.
- MP.4. **Model with mathematics.**
- MP.5. Use appropriate tools strategically.
- MP.6. Attend to precision.
- MP.7. Look for and make use of structure.
- MP.8. Look for and express regularity in repeated reasoning.

### Established Goals (2011 MA Curriculum Frameworks Standards Incorporating the Common Core State Standards)

#### Prerequisite Standards:

#### Standards (Priority Standards in **bold**):

- **2.OA.3 Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.**
- **2.OA.4. Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.**
- 2.OA.2: Fluently add and subtract within 20 using mental strategies. By end of grade 2, know from memory all sums of two one-digit numbers.
- 2.OA.MA.2a: By the end of grade 2, know from memory related subtraction facts of sums of two one-digit numbers.

#### WIDA for English Language Learners

Standard 1: ELLs **communicate** for **Social** and **Instructional** purposes within the school setting  
 Standard 3: ELLs **communicate** information, ideas and concepts necessary for academic success in the content area of **Mathematics**

In the lesson planning stage, teachers will need to differentiate lessons for ELLs. In order to accomplish this they will need: 1.) this curriculum map, 2.) a list of their ELLs and their proficiency levels, and 3.) appropriate language function expectations and scaffolds or supports.

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### Meaning (\*Mostly assessed through Performance Tasks/Assessments)

**Big Ideas:** (Statements and concepts written in teacher friendly language which reflect the important [but not obvious] generalizations we want students to be able to arrive at. These are used by the teacher to focus daily instruction.)

- Any even number can be decomposed into two equal addends.
- Any odd number can not be decomposed into two equal addends.
- Arrays are a way of representing both repeated addition and skip counting.

**Essential Questions:** (Questions which frame ongoing and important inquiries about the big ideas. They are written for students and used in daily instruction to help engage students in meaningful thinking.)

- How do you determine if a number is even or odd?
- How are arrays and repeated addition related?
- How can you use rows and columns to create an equation?

### Acquisition (\*Mostly assessed through traditional summative assessments)

**Knowledge:** Key basic concepts, facts, and key terms (written in phrases) students should be able to recall independently.

*Students will know ...*

- Strategies for grouping objects.
- An array is comprised of rows and columns.
- An array can be expressed as an equation.
- An equation can be expressed as an array
- Repeated addition equations can be drawn as an array.
- Rectangular arrays can be used to create repeated addition equations.
- Difference between even numbers and odd numbers

**Key Academic Vocabulary:**

- Array
- Columns
- Rows

**Skills:** The discrete skills and process students should be able to use independently.

*Students will be skilled at:*

- Decomposing a number into 2 addends to determine odd or even (Applying)
- Identifying the total number of objects in each row or column for arrays with up to five rows. (Remembering)
- Using addition to find the total number of objects in an array (Applying)
- Creating and solving addition equations to express the total of objects or representations in a rectangular array as a sum of addends (adding either columns or rows). (Applying)
- Drawing a rectangular array using grid paper or a pictorial representation given an equation. (Understanding)

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- Equation
- Even
- Odd

### Resource Suggestions:

<http://www.ncpublicschools.org/docs/acre/standards/common-core-tools/unpacking/math/2nd.pdf>